



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,723	02/27/2001	Helen Biddiscombe	4661300006	3720
35161	7590	06/05/2006		
DICKINSON WRIGHT PLLC 1901 L. STREET NW SUITE 800 WASHINGTON, DC 20036				
			EXAMINER BRUENJES, CHRISTOPHER P	
			ART UNIT 1772	PAPER NUMBER

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/763,723

Applicant(s)

BIDDISCOMBE, HELEN

Examiner

Christopher P. Bruenjes

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-5,8,9,12,13,15-17,20-27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5,8,9,12,13,15-17,20-27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1772

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 2-5, 9, 13, 15-17, 21-25, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balaji et al (USPN 6,726,969) in view of Yamanaka et al (USPN 5,332,542).

Regarding claims 2-5, 13 and 30, Balaji et al teach an in-mold labeled, blow molded article (see abstract and col.1, 1.30-

Art Unit: 1772

42). The label is formed from a laminate comprising a core layer or base layer composed of polypropylene homopolymers (col.7, 1.16-20) and an outer layer or heat sealable layer (see abstract). The heat sealable polymer is a polyolefin found in the heat seal layer in an amount between 60% and 90% by weight of the heat seal layer (col.4, 1.44-47) and the polyolefin is a copolymer of ethylene and propylene or ethylene, propylene, butylene each containing a major amount of propylene (col.4, 1.53-60). The polypropylene is a biaxially oriented voided film (col.8, 1.38-44). The film has a shrinkage of less than about 6% in both the machine and transverse directions since the film is biaxially oriented (col.4, 1.11-14), which includes shrinkage values greater than 6%. Depending on the amount of voids produced within the voided film, the film would obviously have a density of 0.8g/cm<sup>3</sup> or more since the density of the polypropylene is about 0.89g/cc before the voids are produced (col.7, 1.35-42) and the polypropylene is mixed with fillers having a greater density (col.7, 1.45-65). Regarding claims 9 and 16-17, the film comprises at least one intermediate polyolefin layer on the base layer and an outer layer on the intermediate layer, when the core layer is formed of multiple layers of polyolefin (col.6, 1.66-67). Regarding claim 15, the base or core layer comprises filler such as a pigment (col.7,

Art Unit: 1772

1.45-46) and/or a voiding agent (col.9, 1.39-44). Regarding claims 21-25, the claims require all of the same limitations as discussed above with regard to claims 2-5, 13, and 15, and requires that the void-creating filler disposed in the polypropylene homopolymers be selected from the group consisting of chalk and organic polymers, which are all taught as void creating fillers in Balaji et al (col.9, 1.39-60). Claim 21 also requires that the density of the film is less than  $0.8 \text{ g/cm}^3$ . Depending on the amount of voids produced within the voided film, the film would obviously have a density of  $0.8 \text{ g/cm}^3$  or more since the density of the polypropylene is about  $0.89 \text{ g/cc}$  before the voids are produced (col.7, 1.35-42) and the air filling the voids is much less than  $0.8 \text{ g/cm}^3$ . Therefore, if the film were formed with large voids the density of the film would be less than  $0.8 \text{ g/cm}^3$ . Regarding claims 29 and 31, the claims require all of the same limitations as discussed above with regard to claims 13, 15, and 30, and requires the heat sealable layer be adhered to the container, which is the case in Balaji et al (see abstract).

Balaji et al fail to teach that the blow molded plastic container comprising the in-mold label taught is formed from high-density polyethylene. However, Balaji et al teach that the heat seal layer is formed to be compatible with the container

Art Unit: 1772

the in-mold label is adhered and gives examples of the material used to form the container, including polypropylene and polyethylene terephthalate (col.5, 1.66 - col.6, 1.2). Yamanaka et al teach that it is well known in the art to form blow-molded containers having in-mold labels from either polypropylene or high-density polyethylene (col.4, 1.43-45). Yamanaka et al teach that the in-mold label used to adhere to the polypropylene or high-density polyethylene containers are formed from the same type of multi-layer laminate structure taught in Balaji et al including a heat-sealable layer (col.4, 1.43-52). One of ordinary skill in the art would have recognized that in-mold labels having a voided polypropylene core layer and a heat sealable layer are used in labeling polypropylene containers as well as high-density polyethylene containers, as taught by Yamanaka et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select high density polyethylene as the material for forming the blow-molded container comprising the in-mold label taught in Balaji et al, depending on the intended end result of the container, since it is well known that polypropylene and high-density polyethylene containers are interchangeable and

Art Unit: 1772

that the in-mold label having the structure of Balaji et al is used on both types of containers, as taught by Yamanaka et al.

2. Claims 8, 12, 20, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balaji and Yamanaka et al as applied to claims 9, 13 and 21 above, and further in view of Takagaki (USPN 5,078,817).

Balaji and Yamanaka et al teach all that is claimed in claims 9, 13, and 21 as shown above, but fail to teach adding a hydrogenated hydrocarbon resin to the base and/or intermediate layers. However, Takagi teaches that hydrogenated hydrocarbon resins are used in the layers of shrinkage labels, in order to enable the shrinking power of the film to occur uniformly so that deformation of the label does not occur (col.5, 1.9-20). One of ordinary skill in the art would have recognized that hydrogenated hydrocarbon resins are added to the layers of labels having shrinkage, in order to uniformly distribute the shrinking power of the film so that deformation of the label does not occur, as taught by Takagi.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to add the hydrogenated hydrocarbon resins of Takagi to

Art Unit: 1772

the base layer and intermediate layer of Balaji et al in order to prevent deformation of the label, as taught by Takagi.

**ANSWERS TO APPLICANT'S ARGUMENTS**

3. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 2-5, 9, 13, 15-17, 21-25, and 29 over Balaji in view of Yamanaka have been fully considered but they are not persuasive.

In response to Applicant's argument that Balaji does not suggest a density of less than  $0.8 \text{ g/cm}^3$ , Balaji does teach that the polymer forming the voided film has a density greater than  $0.8 \text{ g/cm}^3$ , but depending on the amount of voids formed in the film the density of the film would be less than  $0.8 \text{ g/cm}^3$  since air filling the voids has a density much less than  $0.8 \text{ g/cm}^3$ .

In response to Applicant's argument that Balaji teaches that the olefin is only present in an amount up to 50% in the heat sealable layer, it is agreed that in one embodiment the olefin is a minor amount of the heat sealable layer. However, Balaji also teaches in column 4, lines 44-47 that in another embodiment the heat sealable layer contains the polyolefin as the majority of the polymer in an amount between 60% and 90% by weight.



Art Unit: 1772

In response to Applicant's argument that Balaji fails to teach that the voided film has a shrinkage rate of at least 4% in both the machine and transverse directions. Balaji specifically teaches that the labels are stretched and oriented in both directions and that the shrinkages of the labels are less than about 6%. It would have been obvious to one having ordinary skill in the art that although Balaji does suggest that the shrinkage values should be kept low, less than about 6%, which is a range that includes some values greater than 6%, is considered a low shrinkage value for purposes of the invention of Balaji. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made that the shrinkage values of less than about 6% taught by Balaji would be in regard to both the transverse and machine directions when the label is formed with a biaxial stretch and orientation.

4. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 8, 12, 20, and 26-27 over Balaji in view of Yamanaka and Takagaki have been fully considered but they are not persuasive.

In response to Applicant's argument that Takagaki does not overcome the deficiencies discussed with regard to Balaji and

Art Unit: 1772

Yamanaka, see the response to the arguments regarding the rejection over Balaji and Yamanaka presented above.

**Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489.

Art Unit: 1772

The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher P Bruenjes  
Examiner  
Art Unit 1772

CPB

May 31, 2006

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

5/31/06